

April 9, 2010

ITB: 005362  
"SAN Storage"**Addendum I**Due: 04/20/10 at 2:00 P.M.  
Buyer: Delores Garner-Bryant

The purpose of this addendum is to answer questions submitted by IBM, BCI-IT, Latg.net, to extend the due date and to extend the date to answer questions until 04/09/2010.

**Extend Due date from 04/13/2010 to 04/20/2010.****Questions submitted by IBM.**

1. In the 2nd Section you reference 7.2K RPM SATA drives and in the 10th Section you reference 10K SATA drives, are 7.2K drives acceptable?

**Answer: 7.2K SATA required. 10K reference was FC drives.**

2. Are 300GB drives acceptable if 146GB drives are no longer available?

**Answer: 300GB OK, as long as RPM is the same**

3. Are 4GB FC drives acceptable over the 3GB SAS drives requested?

**Answer: Yes**

4. Does HW and SW to manage all components of the SAN include SAN switches?

**Answer: Yes**

5. Please explain your requirements for LUN migration

**Answer: We want the ability to migrate data from one LUN to another LUN without user interruption.**

6. Since IBM has published SPC Benchmarks that indicate our performance is better than or equal to the vendor that has dynamic load balancing, Can that be used to comply with LSU HSC's bid specification?

**Answer: Submit the benchmarks with the bid response and we will review for compliance.**

**Questions submitted by BCI-IT**

**Attachment 1 was part of the bid specs and contained in the same document.**

7. Can we obtain the estimated quantity (TB) of Snapshot (ShadowImage) license the customer would require upfront? Depending on how much is required, vs current estimate in the quote, we might be able to reduce the cost of the deal.

**Answer: None required initially.**

8. Can we obtain the estimated quantity (TB) of remote replication license the customer would require upfront? Depending on how much is required, vs current estimate in the quote, we might be able to reduce the cost of the deal.

**Answer: None required initially.**

9. Can we obtain the estimated quantity (TB) of Dynamic Provisioning licenses the customer would require upfront? Depending on how much is required, vs current estimate in the quote, we might be able to reduce the cost of the deal.

**Answer: None required initially.**

10. Can we confirm that infrastructure (h/ware, and s/ware) required to support remote replication is already in place, and is not required as part of this quotation.

**Answer: With the exception of the required fiber switches to support the SAN connectivity, all hardware for replication is in place**

**Questions submitted by LATG-Innovative & Effective Technology**

11. Will LSUHSC please provide a detailed list of all GE Centricity RIS-IC Storage requirements? **List not available.**

**Answer: These specs are written to meet our needs for this application and future application deployments.**

12. If our solution configures storage differently in order to increase performance, efficiency, reliability and to decrease costs, can we submit bids that only satisfy Usable RAID'ed storage? (e.g. 1295 GB RAID 10, 4TB RAID 5)

**Answer: These specs were written meet LSUHSC's performance needs**

13. Should power supplies, fans and controllers also be hot swappable?

**Answer: Yes**

14. Can LSUHSC please supply a diagram showing how you plan to connect and deploy host port connectivity for 8 FC ports at 8Gbs each? Also, please clarify if this is supposed to be 8Gbs or 8GBs.

**Answer: No Diagram available. 8Gb/s**

15. Mixing of drives in the same shelf. Is this an example of one of the proprietary specifications where we can submit an equivalent?

**Answer: True equivalents will be considered**

16. What application or technical requirement does mixing of drive types within a single tray resolve? Can you supply information about why this is a requirement and what technical need(s) exist that require this? If this is a solution to a problem incumbent in traditional storage solutions what problem is it and can we submit information about how a new type of technology eliminates this?

**Answer: Helps minimize data center physical space requirements for future growth.**

17. If the storage solution we propose is not dependent on drive connector limitations (e.g. SAS, SATA, FC), do we still need to address some of the requirements pertaining to SAS, SATA and FC and mixing of drive types?

**Answer: Yes**

18. For the requirement asking for drive support up to 240 drives: Is there a usable storage or capacity utilization specification for this? If we can support up to 1 PB of Usable storage is that sufficient?

**Answer: No, not necessarily. Performance can be an issue as opposed to bulk storage.**

19. One of the requirements asks for 48 SATA drives in 4U of rackspace. We view this as an example Part IV, line 4.2 where and equivalent is acceptable. Can you please tell us how much Usable Capacity you require in 4U of rackspace?

**Answer: The drive requirements are a performance requirement, not a space requirement.**

20. RAID Levels supported: If we can demonstrate that our solution does not require any other RAID levels other than 5 or 10 will that be acceptable?

**Answer: No**

21. The requirement for Symmetrical Active/Active controllers: is the Broadband Cross Path part another example of what was mentioned in Part IV, line 4.2 (e.g. vendor proprietary)

**Answer: No**

22. Point to point backend: what is the technical need or requirement for this? What specifically does this accomplish for LSUHSC? If another technology can accomplish the same or better end result is that acceptable?

**Answer: These specs were written to meet LSUHSC's performance needs. True equivalents will be considered.**

23. Cache Segmenting: If our regular performance can match or exceed the required workload without being dependent on cache for help, is that acceptable?

**Answer: Yes**

24. Drive Spin down: Our solution can do drive spin down. However, how often will this be used or required of the chosen solution? What is the technical or business driver behind using spin down? If another type of solution can accomplish the same result will that be acceptable?

**Answer: These specs were written to meet LSUHSC's performance needs. True equivalents will be considered.**

25. Brocade Switches: Why are you asking for Brocade switches with only 4GB ports when the controller requirement is for 8GB? Also, in accordance with Part IV, section 4.2, is an alternative from another manufacturer acceptable?

**Answer: Incorrect Information, It should have read 8Gb/s Brocade 300, equivalent hardware is acceptable.**

26. If we can do no charge software and firmware upgrades automatically via secure VPN with no need for customer intervention is that acceptable?


**Answer: No**

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**27.** Why is there no requirement for mirroring data between the two sites? What is the plan for mirroring or duplicating data between the two sites for Disaster Recovery or business continuance?

Answer: Replication does not need to be handled by the SAN.

This addendum herein becomes a permanent part of Solicitation #005362 and should be submitted with your bid. If your bid has already been mailed or submitted to the Medical Center, your addended bid should be submitted in the space provided at the bottom of this page and placed in the attached envelope, sealed, and submitted to the Louisiana State University Medical Center on or before the above due time and date.

  
for: Jeffrey L. Hartgrove, C.P.M.  
Director of Purchasing  
and Material Management

Addendum Bid:

Firm: \_\_\_\_\_ Sign: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_